

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-16. (canceled)

17. (currently amended) A method of assisting the piloting of ~~an~~ a rotary wing aircraft in the vicinity of a landing or takeoff point ~~(PP)~~, the method comprising:

· using means ~~(10 to 15)~~ including a computer ~~(10)~~ configured to determine the locus ~~(TRANSUR)~~ of entry and/or exit points ~~(PE, PS)~~ for a given approach and/or departure altitude ~~(HE, HS)~~ that are not safe for reaching said landing point or on leaving said takeoff point of the rotary wing aircraft, on the basis of coordinates for the landing or takeoff point input into the computer by a tool ~~(14)~~ for inputting coordinates and suitable for being manipulated by a pilot, and taking account of a climb/descent template or profile ~~(R1, R2, R3, PR, PR1, PR3)~~ of the rotary wing aircraft; and

· presenting a diagram ~~(D)~~ including said locus on a display device ~~(16)~~,

wherein a limit curve segment is determined corresponding to the trace in the plane or level corresponding to said altitude of the template or profile passing through the landing or takeoff

point and grazing or bearing against the top of an obstacle  
extending in the vicinity of the landing or takeoff point; and  
wherein at least one segment of the limit curve is  
determined that extends in a plane or level corresponding to said  
altitude, the portion of the limit curve separating the locus of  
safe entry and/or exit points from unsafe entry and/or exit  
points, and the landing or takeoff point together with the  
segment of the limit curve are displayed on the display device.

18-19. (canceled)

20. (currently amended) [[A]] The method according to  
claim 18, in which there is displayed on the display device the  
diagram ~~+D+~~ including the landing or takeoff point, at least a  
portion of one or more circles ~~(C2, C3, DCA3, DCA15, DGD2, DGD6)~~  
centered on said point, and the limit curve portion, at least.

21. (currently amended) [[A]] The method according to  
claim 18, in which a first color or texture is applied to a  
portion ~~(RSUR)~~ of the diagram extending inside the limit curve  
portion, and a second color or texture, different from the first  
color or texture, is applied to the portion ~~(RNONSUR)~~ of the  
diagram that extends outside said limit curve portion, and these  
portions of the diagram are displayed on the display device.

22. (currently amended) [[A]] The method according to claim 17, in which an altitude margin ~~(M)~~ is associated with the template or profile in order to compensate for errors in positioning the point ~~(PP)~~ and/or the obstacle, and/or in order to take account of an overflight margin.

23. (currently amended) [[A]] The method according to claim 17, in which the template or profile comprises a single rectilinear segment.

24. (currently amended) [[A]] The method according to claim 17, in which the template or profile comprises a plurality of segments.

25. (currently amended) [[A]] The method according to claim 24, in which the projections of the segments in a vertical plane are in alignment.

26. (currently amended) [[A]] The method according to claim 24, in which the projections of the segments in a horizontal plane are in alignment.

27. (currently amended) [[A]] The method according to claim 17, in which a symbol is displayed on the device ~~(16)~~ representing the entry and/or exit point ~~(PE, PS)~~, said symbol

being surrounded by a first circle representing a first margin corresponding to a positioning error for the point and being surrounded by a second circle concentric with the first circle and representing an additional horizontal piloting margin.

28. (currently amended) A device for assisting the piloting of ~~an~~ a rotary wing aircraft in the vicinity of a landing or takeoff point ~~(PP)~~,

the device comprising:

- a database ~~(11)~~ containing characteristics of obstacles ~~(01, 02, 03)~~;
- a computer ~~(10)~~ provided with means (12) for reading configured to read the characteristics of obstacles from the database;
- a tool ~~(14)~~ for inputting into the computer the coordinates of a landing or takeoff point for said rotary wing aircraft;
- ~~means (13) co-operating with the computer~~ configured to respond to the coordinates of the landing or takeoff point and to an approach or departure altitude to determine the locus ~~(RNONSUR)~~ of entry and/or exit points at said altitude that are unsafe, taking account of a predetermined climb/descent template or profile ~~(R1, R2, R3, PR, PR1, PR3)~~ of said rotary wing aircraft; and
- ~~means (15, 16)~~ for presenting said locus to the pilot.

29. (currently amended) [[A]] The device according to claim 28, in which the database ~~{11}~~ includes the coordinates and the dimensions of natural or artificial obstacles ~~{01, 02, 03}~~.

30. (currently amended) [[A]] The device according to claim 28, including a tool ~~{14}~~ for inputting into the computer an approach or departure altitude, which tool is suitable for being manipulated by a pilot of the aircraft.

31. (currently amended) [[A]] The device according to claim 28, in which the input tool ~~{14}~~ is a pointer device or a joystick.

32. (currently amended) [[A]] The device according to claim 28, embarked or suitable for embarking on board an aircraft.

33. (currently amended) [[A]] The method according to claim 18, in which at least one segment ~~{TARS1, TARS2}~~ of the limit curve ~~{CL}~~ is determined that extends in a plane or level ~~{P}~~ corresponding to said altitude, the portion of the limit curve separating the locus ~~{RSUR}~~ of safe entry and/or exit points from unsafe entry and/or exit points, and the landing or

takeoff point together with the segment of the limit curve are displayed on the display device.

34. (currently amended) [[A]] The method according to claim 19, in which there is displayed on the display device the diagram ~~+~~ including the landing or takeoff point, at least a portion of one or more circles ~~(C2, C3, DCA3, DCA15, DCD2, DCD6)~~ centered on said point, and the limit curve portion, at least.

35. (currently amended) [[A]] The method according to claim 19, in which a first color or texture is applied to a portion ~~(RSUR)~~ of the diagram extending inside the limit curve portion, and a second color or texture, different from the first color or texture, is applied to the portion ~~(RNONSUR)~~ of the diagram that extends outside said limit curve portion, and these portions of the diagram are displayed on the display device.

36. (currently amended) [[A]] The method according to claim 20, in which a first color or texture is applied to a portion ~~(RSUR)~~ of the diagram extending inside the limit curve portion, and a second color or texture, different from the first color or texture, is applied to the portion ~~(RNONSUR)~~ of the diagram that extends outside said limit curve portion, and these portions of the diagram are displayed on the display device.